*Fig. 1a – **PRIOR ART***

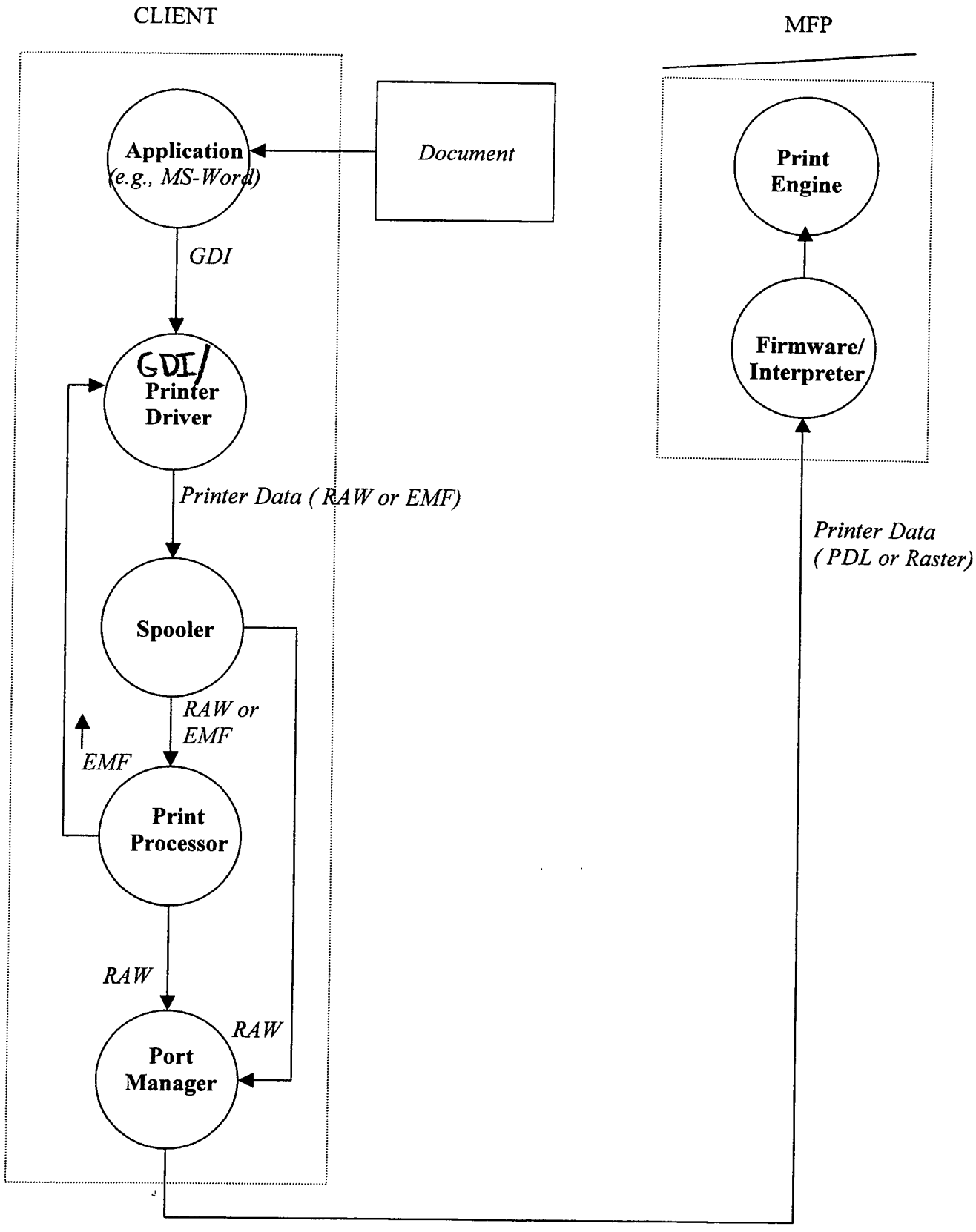


*Fig. 1b – **PRIOR ART***

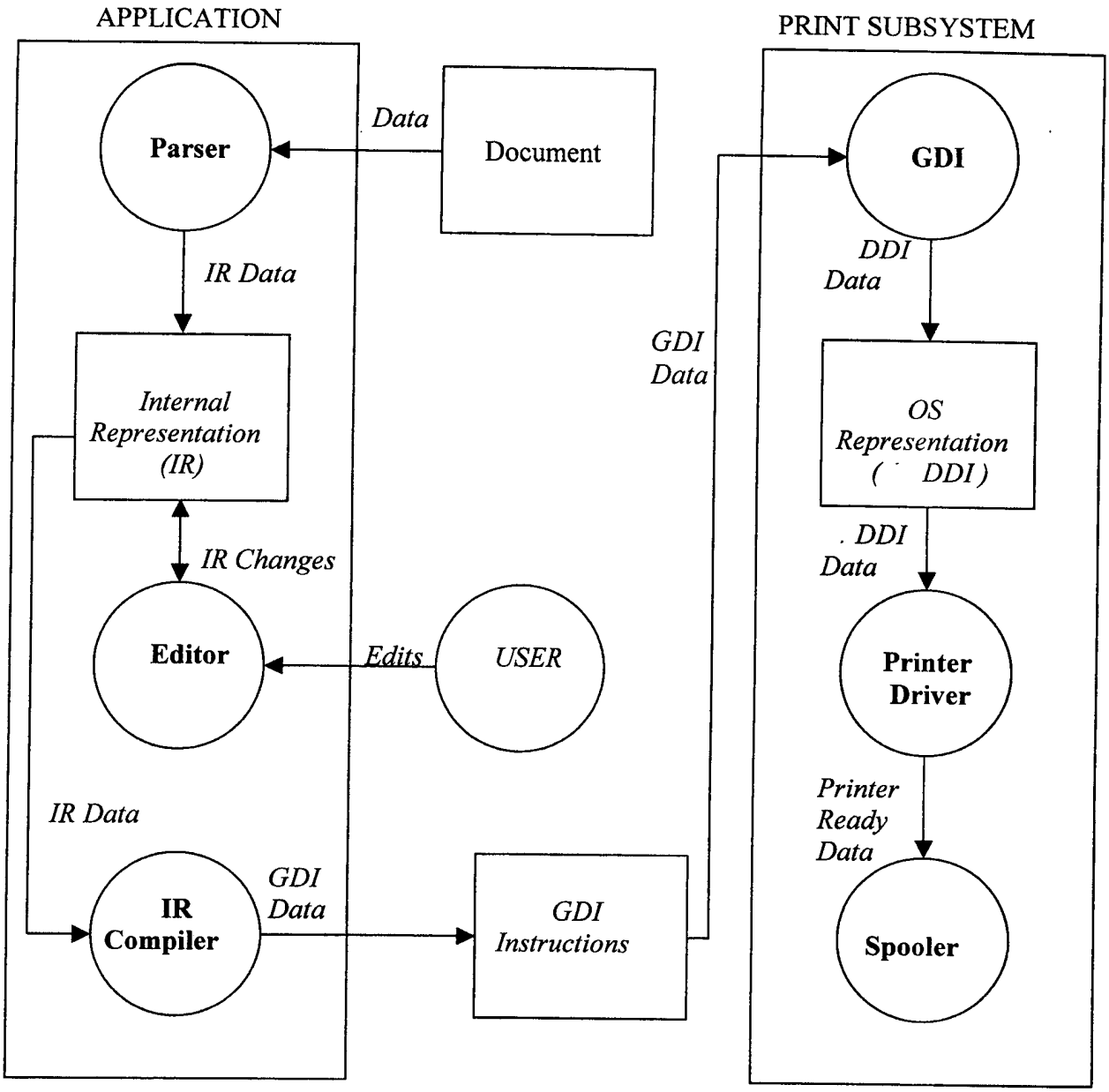


*Fig. 1c - **PRIOR ART***

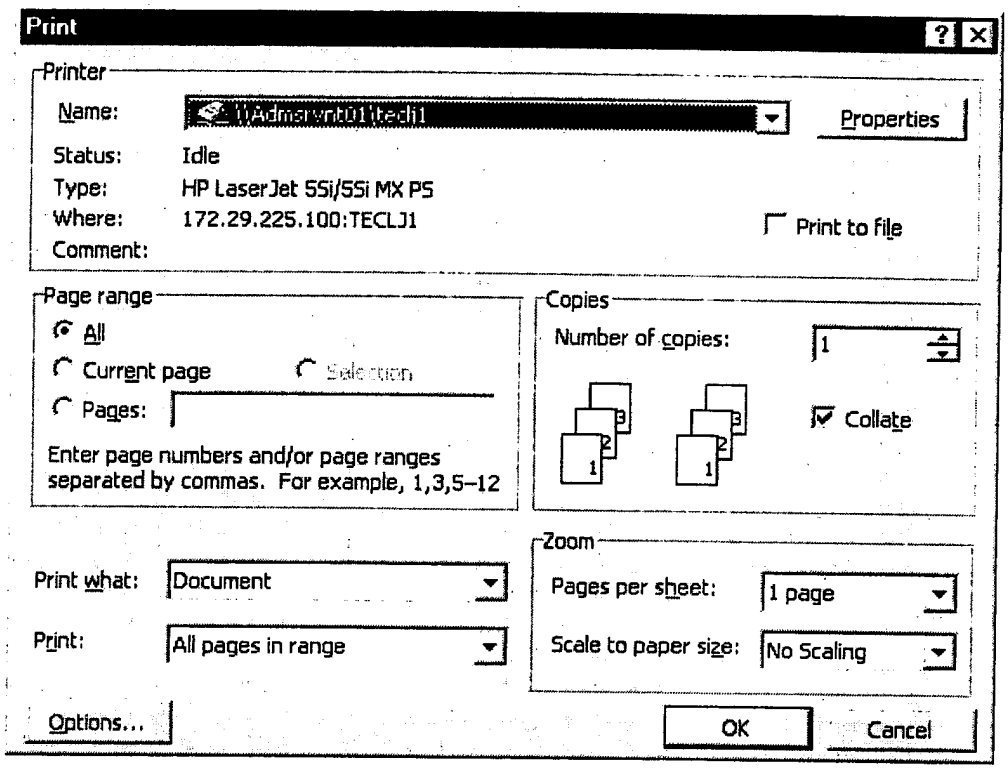


*Fig. 1d – **PRIOR ART***

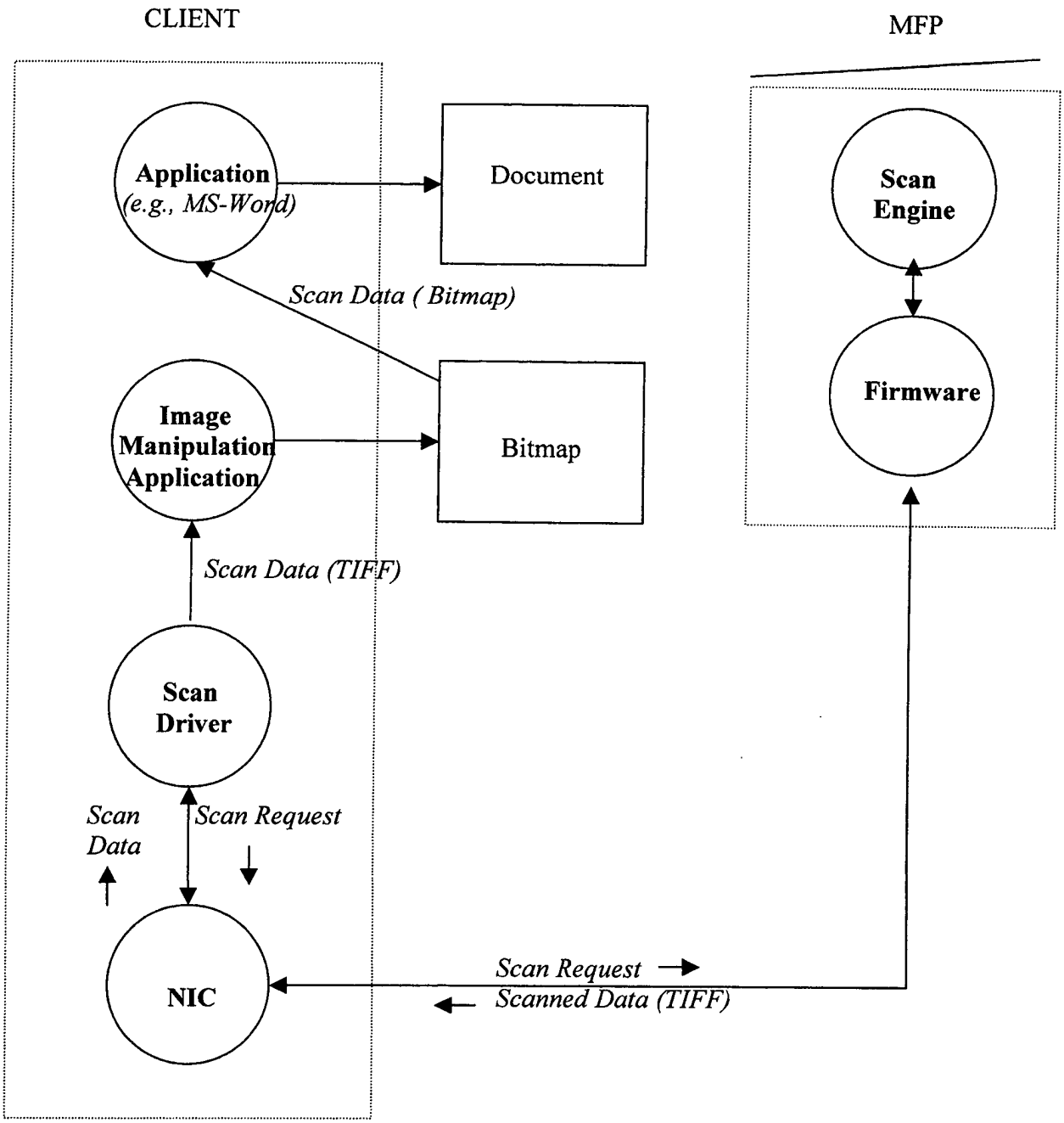


Fig. 2

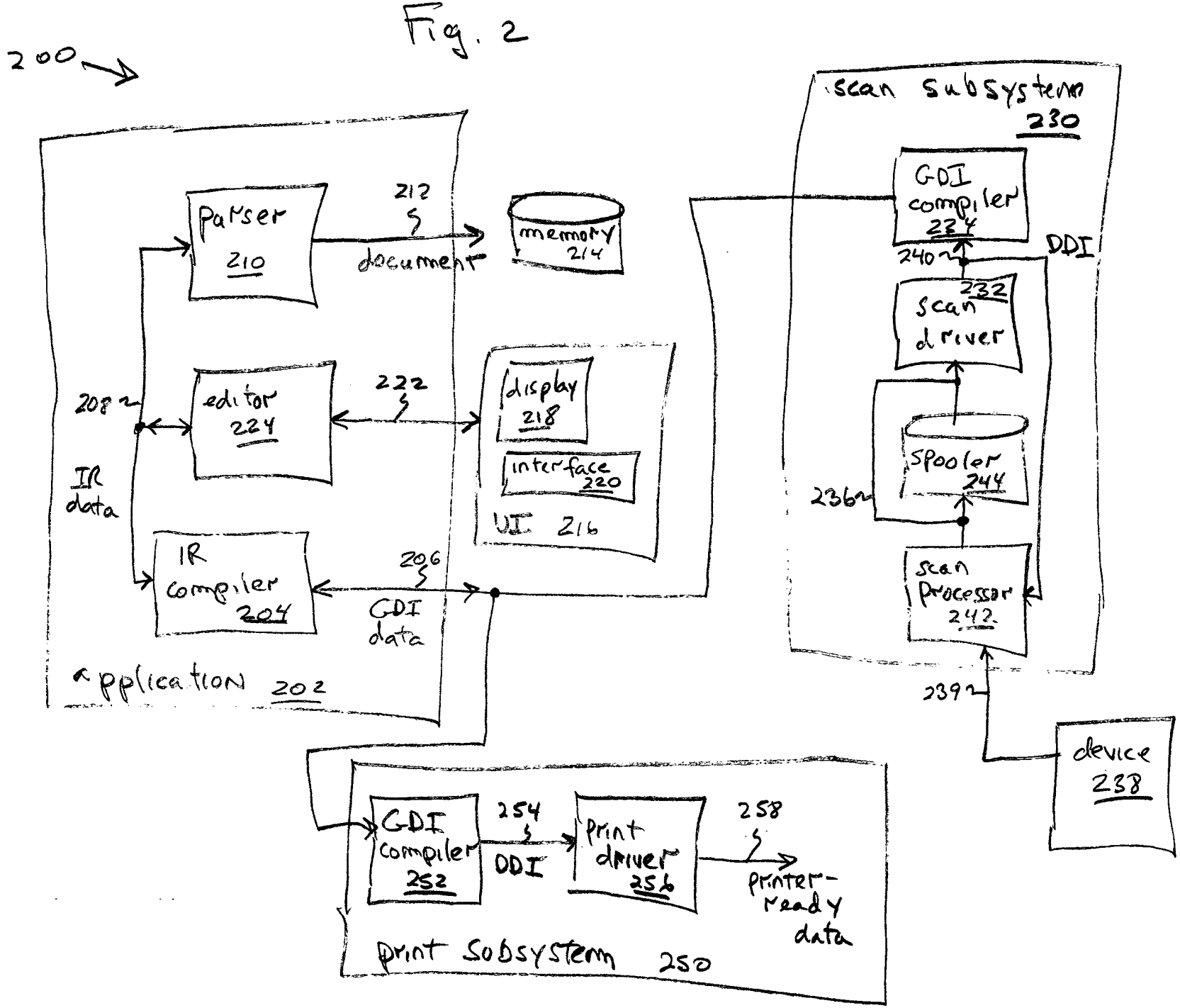

200
Application 202
Parser 210
212
document
memory 214
editor 224
208
222
display 218
interface 220
UI 216
IR data
IR compiler 204
206
GDI data
scan subsystem 230
GDI compiler 234
DDI
240
scan driver 232
spooler 244
236
scan processor 242
239
device 238
GDI compiler 252
254
DDI
print driver 256
258
printer-ready data
print subsystem 250

Fig. 3

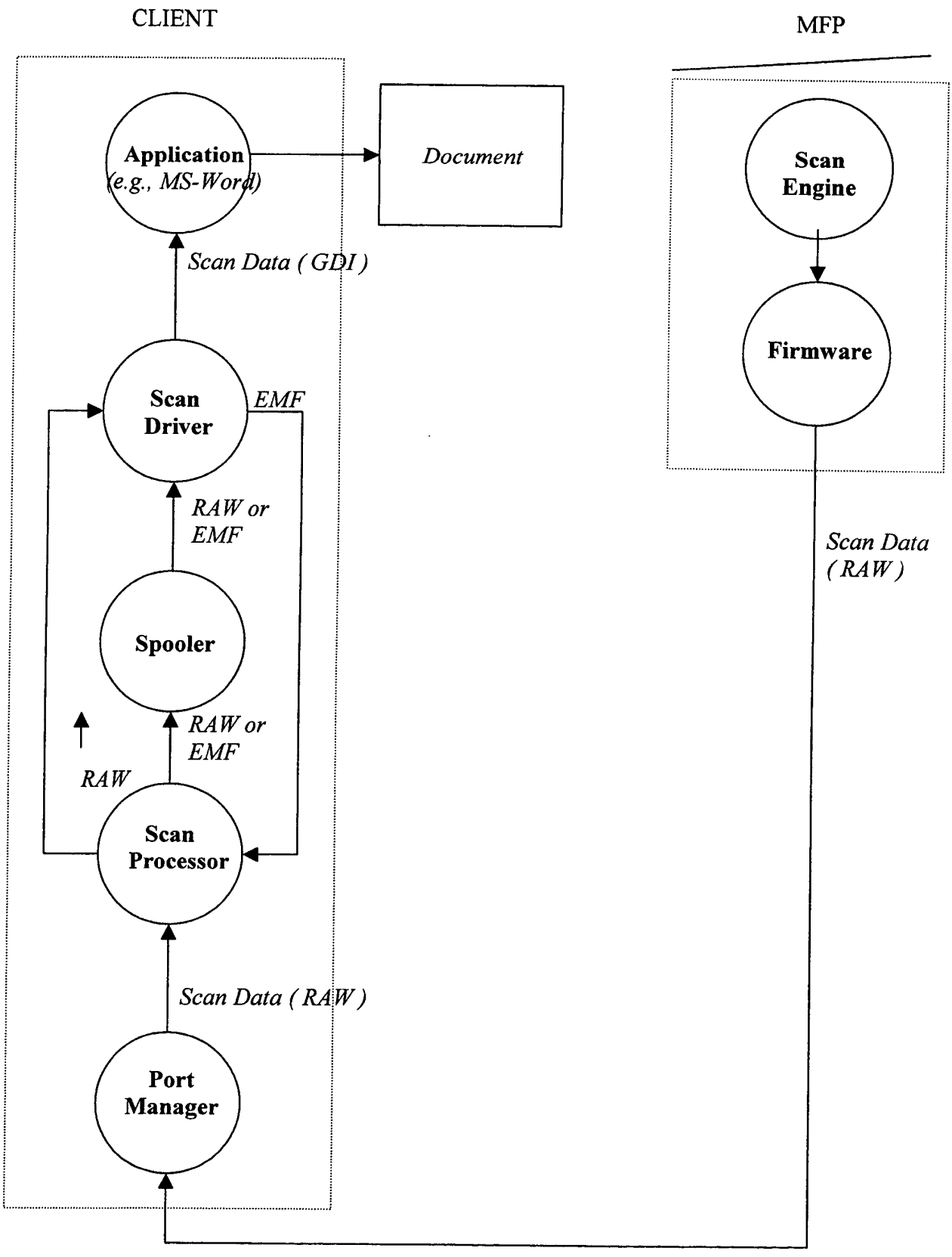

CLIENT
MFP
Application
(e.g., MS-Word)
Document
Scan Data (GDI)
Scan
Driver
EMF
RAW or
EMF
Spooler
RAW or
EMF
RAW
Scan
Processor
Scan Data (RAW)
Port
Manager
Scan
Engine
Firmware
Scan Data
(RAW)

Fig. 4

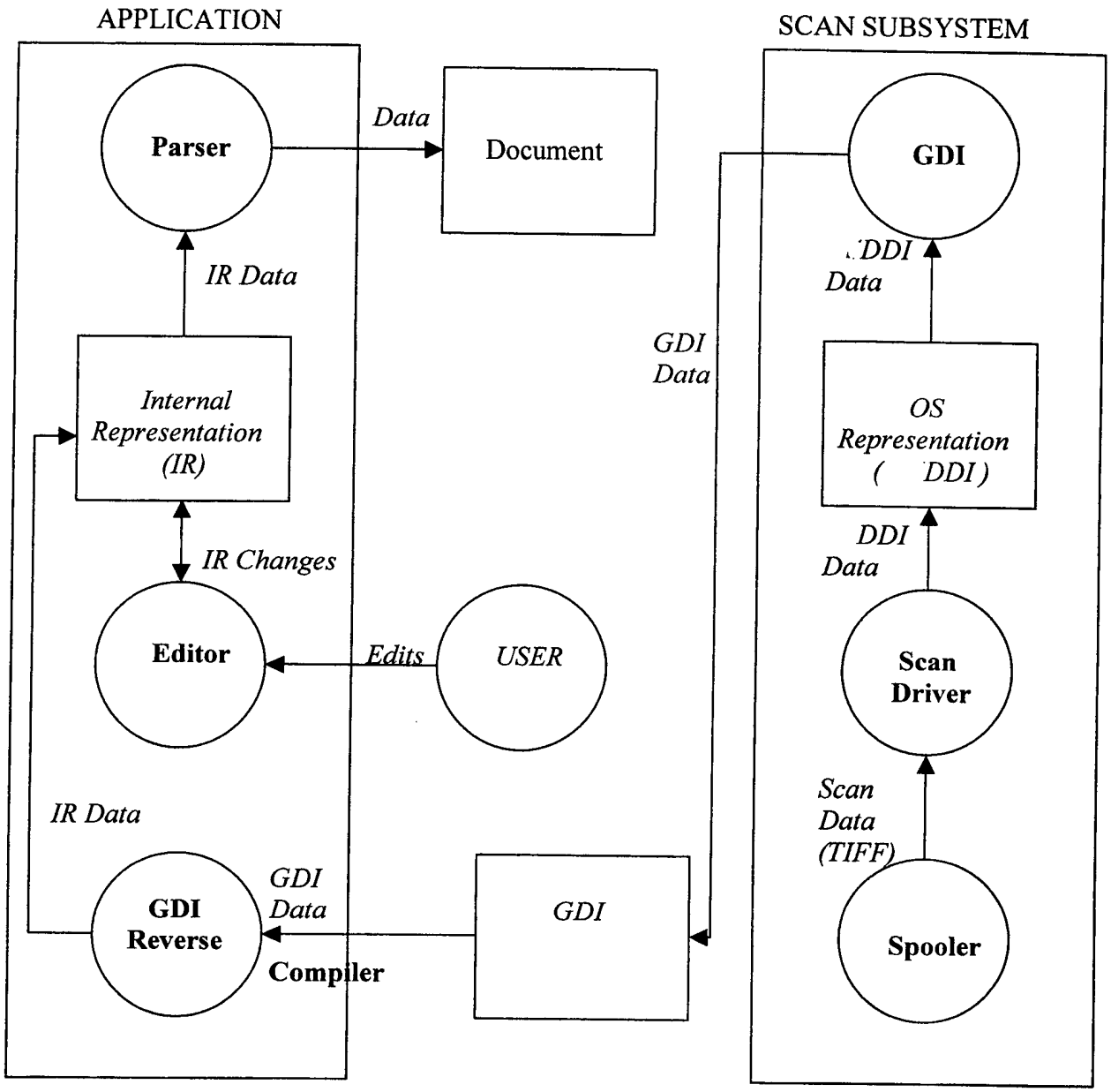

APPLICATION
SCAN SUBSYSTEM
Parser
Data
Document
GDI
IR Data
DDI Data
GDI Data
Internal Representation (IR)
OS Representation (DDI)
IR Changes
DDI Data
Editor
Edits
USER
Scan Driver
IR Data
Scan Data (TIFF)
GDI Data
GDI Reverse Compiler
GDI
Spooler

Fig. 5

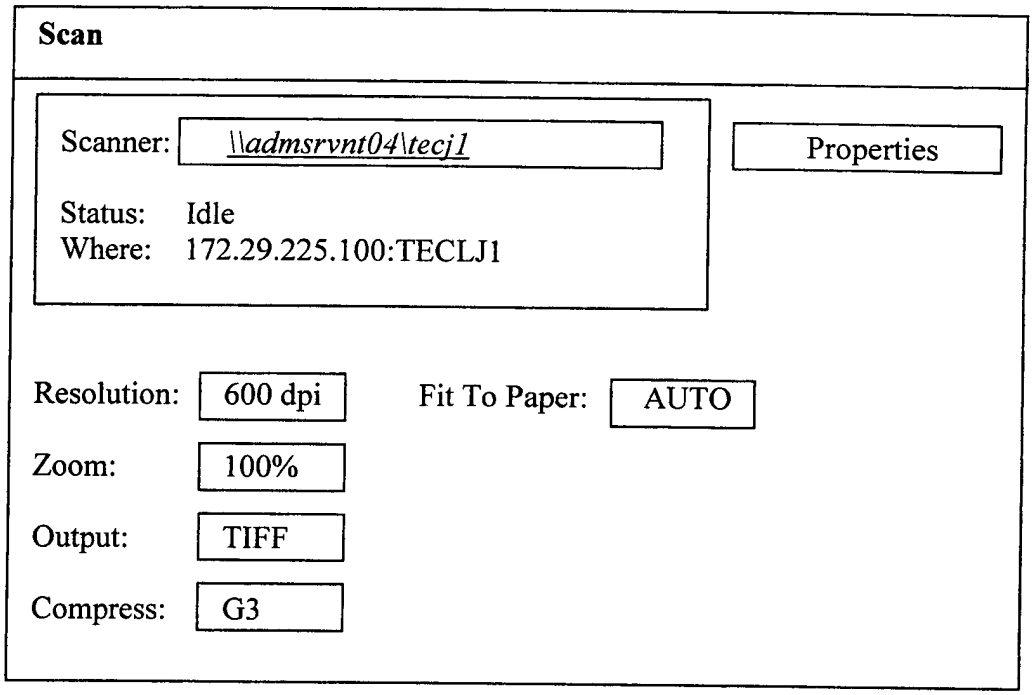
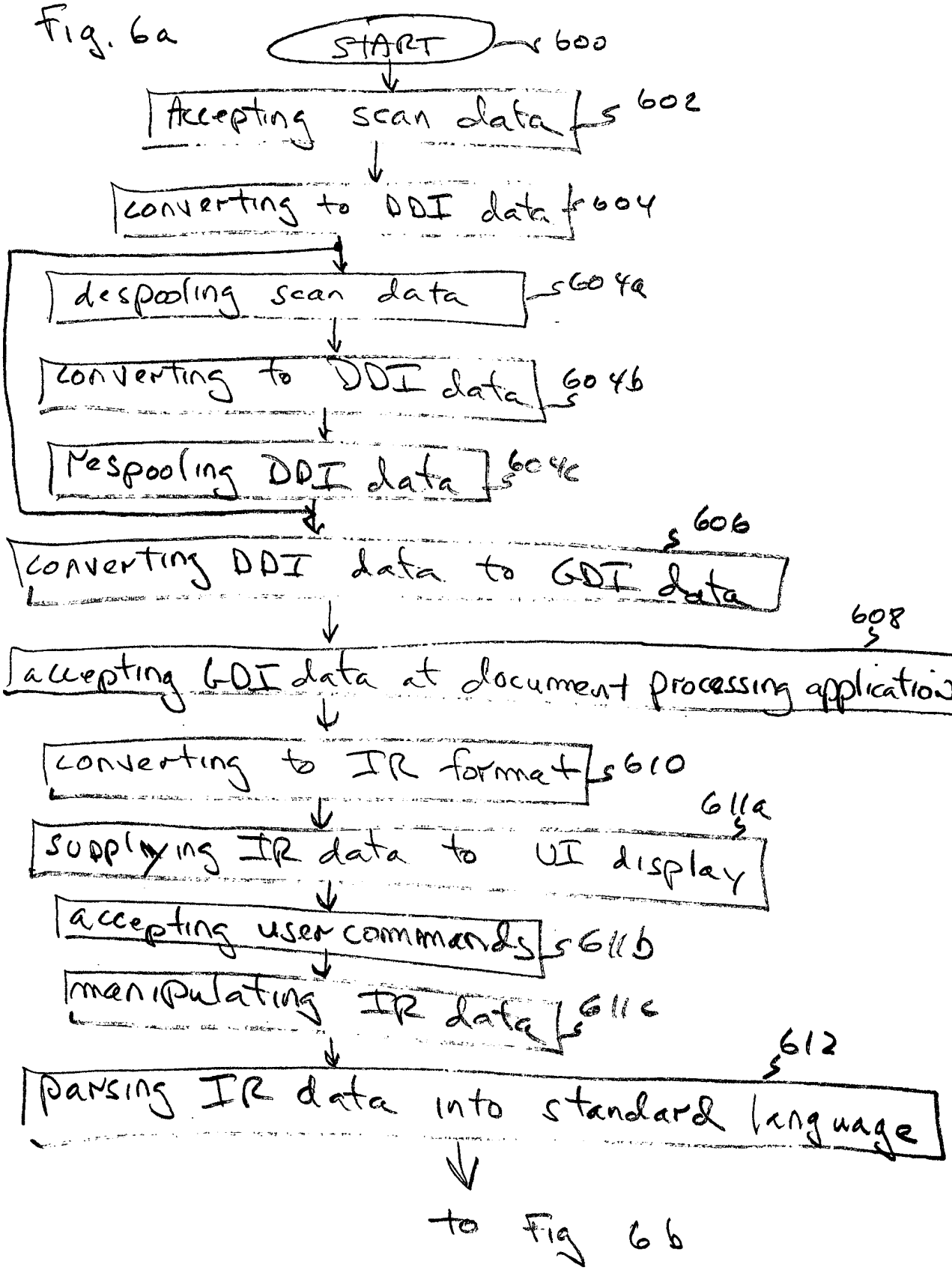

Scan
Scanner:
\\admsrvnt04\tecj1
Properties
Status: Idle
Where: 172.29.225.100:TECLJ1
Resolution:
600 dpi
Fit To Paper:
AUTO
Zoom:
100%
Output:
TIFF
Compress:
G3

Fig. 6a


START
600
Accepting scan data
602
converting to DDI data
604
despooling scan data
604a
converting to DDI data
604b
respooling DDI data
604c
converting DDI data to GDI data
606
accepting GDI data at document processing application
608
converting to IR format
610
supplying IR data to UI display
611a
accepting user commands
611b
manipulating IR data
611c
parsing IR data into standard language
612
to Fig 6b

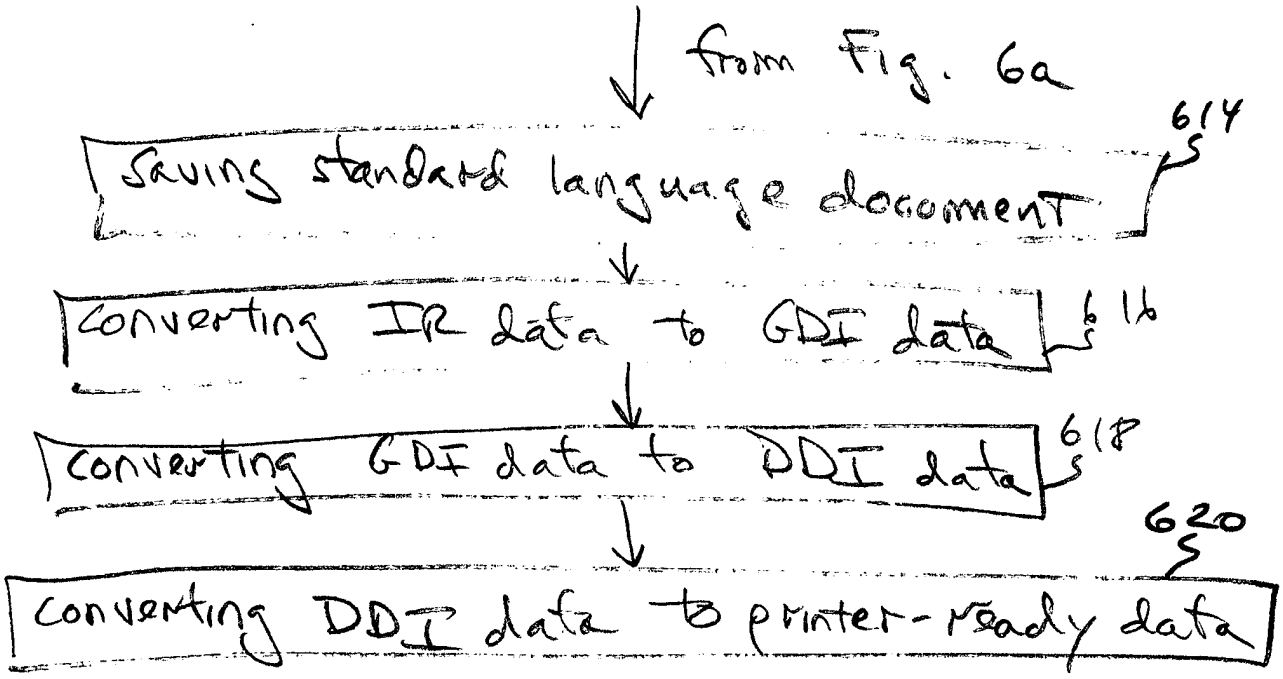

from Fig. 6a
saving standard language document
614
converting IR data to GDI data
616
converting GDI data to DDI data
618
converting DDI data to printer-ready data
620

Fig. 6b